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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,933	12/22/2000	Charles L. Bruzzone	55376USA4A	3760

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EXAMINER

SHAFER, RICKY D

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 06/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/746,933

Applicant(s)

BRUZZONE ET AL

Examiner

R.D. SHAFER

Group Art Unit

2872

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 month MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on 3/27/02

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 1-19 AND 22-25 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☐ Claim(s) \_\_\_\_\_ is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☒ Claim(s) 1-19 AND 22-25 are subject to restriction or election requirement

## Application Papers

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other \_\_\_\_\_

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1. Applicant's election of Species "B", depicted by Fig. 1b, in Paper No. 12 is acknowledged.
2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-12 and 25, drawn to an optical imaging system comprising an illumination system having a  $f/\#$  less than or equal to 2.5, a Cartesian polarizing beam splitter, a color separation and recombination prism and a plurality of polarization modulating imagers, classified in class 359, subclass 256.
  - II. Claim 14, drawn to a projection system comprising an illumination system having a  $f/\#$  less than or equal to 2.5, a Cartesian polarizing beam splitter and a color separation prism assembly, classified in class 359, subclass 495.
  - III. Claims 15 and 16, drawn to a projection system comprising a Cartesian polarizing beam splitter and a color separation prism assembly, wherein the projection system is a front or rear projection system, classified in class 359, subclass 495.
  - IV. Claims 17, drawn to a projection system comprising a Cartesian polarizing beam splitter and a color separation prism assembly with particular color separation prism details, classified in class 359, subclass 495.
  - V. Claim 18, drawn to a projection system comprising a Cartesian polarizing beam splitter and a color separation prism assembly with particular polarizing beam splitter details, classified in class 359, subclass 498.

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- VI. Claim 22, drawn to a projection system comprising an illumination system having a  $f/\#$  less than or equal to 2.5, a Cartesian polarizing beam splitter and a color separation prism assembly having a plurality of color separating surfaces with tilt axes, classified in class 359, subclass 495.
- VII. Claims 23 and 24, drawn to a projection system comprising a Cartesian polarizing beam splitter, a color separation prism assembly having a plurality of color separating surfaces with tilt axes, and a plurality of polarization modulating reflective imagers, classified in class 359, subclass 247.
3. Claim 13 link(s) inventions I-VII. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claim(s), claim 13. Upon the allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

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4. Claim 19 link(s) inventions VI and VII. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claim(s), claim 19. Upon the allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

5. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the evidence of claims 23 and/or 24. The subcombination has separate utility such as a projection system without a plurality of imagers or recombination prism.

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Inventions I and [III-V] are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the evidence of claims 1-7, 12 and 25. The subcombination has separate utility such as a projection system without a plurality of imagers or recombination prism.

Inventions I and [VI, VII] are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the omission of the details that the color separation prism assembly includes a plurality of color separating surfaces having tilt axes, wherein the tilt axes of the color separating surfaces are perpendicular to the first axes of the beam splitter. The subcombination has separate utility such as a projection system without a plurality of imagers or recombination prism (see claim 22) or a plurality of polarization modulating imagers or a recombination prism (see claim 23) or a plurality of polarization modulating reflective imagers (see claim 24).

Inventions I and VII are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the

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particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the omission of the details that the color separation prism assembly includes a plurality of color separating surfaces having tilt axes, wherein the tilt axes of the color separating surfaces are perpendicular to the first axes of the beam splitter or by the evidence of claims 14 and 22. The subcombination has separate utility such as a projection system without a plurality of polarization modulating imagers or a recombination prism (see claim 23), a plurality of polarization modulating reflective imagers (see claim 24) or without an illumination system having a  $f/\#$  less than or equal to 2.5.

Inventions II, VI and VII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, each of the inventions II, VI and VII has separate utility such as a projection system with the separate details of the other inventions. For example, the projection system of inventions I and VI has separate utility as a projection system without a plurality of imagers of invention VII, and the projection system of invention VII has separate utility as a projection system without an illumination system having a  $f/\#$  less than or equal to 2.5 of inventions II or VI. See MPEP § 806.05(d).

Inventions III, IV and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be

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separately usable. In the instant case, each of the inventions III, IV and V has separate utility such as a projection system with the separate details of the other inventions. For example, the projection system of inventions III has separate utility as a projection system without the particular color separation prism details of invention IV or particular polarizing beam splitter details of Invention V, the projection system of invention IV has separate utility as a projection system without the particular polarizing beam splitter details of Invention V or projection details of invention III and the projection system of invention V has separate utility as a projection system without the particular color separation prism details of invention IV or projection details of invention III. See MPEP § 806.05(d).

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, or recognized divergent subject matter, or the search required for one of the inventions is not coextensive with the search for any of the remaining inventions (as stated below) restriction for examination purposes as indicated is proper.

Invention II would further require a search in class 348, subclass 745 which would not be required for inventions III-V and VII.

Invention III would further require a search in class 353, subclass 20 and class 348, subclass 744 which would not be required for inventions II and IV-VII.

Invention IV would further require a search in class 359, subclass 831 which would not be required for inventions II, III, V, VI and VII.



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Invention VI would further require a search in class 359, subclass 638 which would not be required for inventions II-V and VII. Note : If application elects the invention VI, the examiner will examine invention II (claim 14) along therewith.

7. This application contains claims directed to the following patentably distinct species of the claimed invention:

- A). The optical system being (1) a front projection system or (2) a rear projection system;
- B). The first polarization direction being (1) a s-polarization direction or (2) a p-polarization direction; and
- C). The beam splitter being a (1) 3M ABF multilayer film or (2) a wire grid.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, at least claim 13 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

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Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

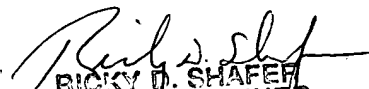
8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

9. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

10. Any inquiry concerning this communication should be directed to R.D. Shafer at telephone number (703) 308-4813.

RDS

June 16, 2002

  
RICKY D. SHAFER  
PATENT EXAMINER  
ART UNIT ~~2872~~ 2872